

What is claimed is:

1. An apparatus comprising:

an amplitude mapping circuit for converting at least a portion of an amplitude signal

5 to a binary value; and,

a plurality of amplifiers coupled to the amplitude mapping circuit,

wherein the binary value is transmitted to at least one of the plurality of amplifiers to specify a gain level of the amplifier.

10 2. The apparatus of claim 1, further comprising:

a rectangular to polar converter for converting a signal into amplitude and phase portions, and for transmitting said amplitude portion to the amplitude mapping circuit.

3. The apparatus of claim 2, further comprising:

15 a phase modulator for modulating the phase portion with a carrier signal.

4. The apparatus of claim 2, further comprising:

a mixer for modulating the phase portion with a carrier signal.

20 5. The apparatus of claim 1, further comprising:

at least one gain control source for applying the binary value to at least one of the plurality of amplifiers.

6. The apparatus of claim 1, further comprising:

25 an input matching circuit coupled to the respective inputs of the plurality of amplifiers; and

an output matching circuit coupled to the respective outputs of the plurality of amplifiers.

7. The apparatus of claim 6, further comprising:

5 at least one gain control source coupled to a control terminal of at least one of the plurality of amplifiers.

8. A method for processing a signal, comprising the steps of:

separating the signal into amplitude and phase components;

10 generating a binary representation of at least a portion of the amplitude component;
and,

specifying a gain level of one of a plurality of amplifiers in response to the generated binary representation.